

DRAFT Castor River Conservation Area

**Ten-Year Area Plan
FY 2018-2027**



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OVERVIEW

- **Official Area Name:** Castor River Conservation Area, #7842
- **Year of Initial Acquisition:** 1978
- **Acreage:** 9,578 acres
- **County:** Bollinger
- **Division with Administrative Responsibility:** Forestry
- **Division with Maintenance Responsibility:** Forestry
- **Statements of Purpose:**
 - A. Strategic Direction**

Manage the Castor River Conservation Area (CA) to protect natural features, ensure healthy and sustainable forests and woodlands, enhance wildlife habitat diversity, and provide the public with compatible outdoor recreational opportunities.
 - B. Desired Future Condition:**

The desired future condition of Castor River CA is an uneven-aged forested landscape with multiple structured layers of tree species by age and size class; and open lands in a rotation of early successional habitats using old field, grasses, and row crops. Together this will provide an ecological system that will provide renewable natural resources and sustainable opportunities for outdoor enthusiasts.
 - C. Federal Aid Statement**

This area, or a portion thereof, was acquired with federal funds and donated to the State to provide fish and wildlife benefits and land conservation.

GENERAL INFORMATION AND CONDITIONS

- I. Special Considerations**
 - A. Priority Areas:** Castor River Terrestrial Conservation Opportunity Area, Sweetgum Aquatic Conservation Opportunity Area, Castor/White Water Watershed Important Bird Area, Priority Forest Landscape
 - B. Natural Areas:** Blue Pond Natural Area (15 acres) is a sinkhole pond that is over 65 feet deep and is believed to have formed from a cavern collapse during the New Madrid earthquake in 1811. The pond apparently does not drain internally. The water temperature at the base of the pond has been measured to be 41°F in May. A wide variety of floating and emergent aquatic plants line the picturesque banks of the pond.

II. Important Natural Features and Resources

- A. Species of Conservation Concern:** Species of conservation concern are known from this area. Area managers should consult the Natural Heritage Database annually and review all management activities with the natural history biologist.
- B. Caves:** None
- C. Springs:** Yes, records kept with Missouri Department of Conservation (the Department) natural history biologist.
- D. Other:**
- Devil's Kettle sink hole is located in the western side of Compartment 5.
 - A second much smaller sink hole is located on the eastern side of Compartment 5.
 - Two small (twin) sinkhole ponds are located a half mile southeast of Blue Pond in Compartment 6.
 - A small sinkhole pond, sometimes called Fillmore Sink, is located in the western parcel of Compartment 4.
 - A portion of a large fen is located on the northeastern edge of Compartment 2, just south of Bollinger County Road 822.
 - Two small seeps/fens are on the area; one is west of the horse campground, and the other is located on the western side of Compartment 1.

III. Existing Infrastructure

- An A-frame style house is used periodically as a training facility for Department Staff and partner organizations; and to house research staff or AmeriCorps crews.
- One unstaffed shooting range (with 25-, 50- and 100-yard back stops), Americans with Disabilities Act (ADA) accessible
- One privy at shooting range (ADA accessible)
- 18 gravel parking lots; 1 ADA-accessible concrete parking area at shooting range
- Six defined camp sites with fire rings; one campground offers amenities for equestrian use
- 19.5 miles of multiuse (hike/bike/horse) trails
- 63 wildlife watering holes (fishless)
- One pond dam (Ivey Lake, 9 acres)

IV. Area Restrictions or Limitations

- A. Deed Restrictions or Ownership Considerations:** Mineral rights reserved by Koppers Company, Inc. at a depth greater than 300 feet.
- B. Federal Interest:** Uses of land acquired with federal funds may not interfere with the purpose for which it was acquired. Federal funds may also be used in the

management of this land. Fish and wildlife agencies may not allow recreational activities and related facilities that would interfere with the purpose for which the State is managing the land. Other uses may be acceptable and must be assessed in each specific situation.

C. Easements:

- Easement to Ozark Border Electric Cooperative, 25 feet wide and approximately 3,500 feet long; south of CR 708.
- Easement to Black River Electric Cooperative, four right-of-ways 25 feet wide and totaling approximately 4,600 feet long; various locations.
- Easement to Rick Roark; approx. 30-50 feet wide and approximately 550 Feet long; Compartment 4; T30N, R8E, Sec. 29. Bk. 503, Pg. 825
- Right-of-way deeded to the State of Missouri, Department of Transportation for State Highways 34, and Y.
- Right-of-way deeded to Bollinger County for County Roads 702, 706, 708, 736, 738, 820 and 822

D. Cultural Resources Findings: Yes, records kept with Department environmental compliance specialist. Managers should follow best management practices for cultural resources found in the Department Resource Policy Manual.

E. Endangered Species: None observed.

F. Boundary Issues: Establishing accurate and identifiable boundary markers is a priority for this property.

G. Other: There are two “No Hunting Zones.” One is located around private residences off County Road 822, and the other is the Safety Zone around the shooting range.

MANAGEMENT CONSIDERATIONS

V. Terrestrial Resource Management Considerations

Challenges and Opportunities

- 1) Control invasive species including autumn olive, sericea lespedeza, tall fescue, Johnson grass, and feral hogs.
- 2) There are non-contiguous public land parcels separated by private land.

Management Objective 1: Enhance, restore, and protect forest and woodland communities.

Strategy 1: Tract inventories will be completed every year on a 15 year rotation. (Forestry)

Strategy 2: Use mainly uneven-aged forestry practices, but also even-aged practices to correct deficiencies in forest composition and/or forest stand structure, according to current tree structure, tree age, site index, and tree species composition. Forestry practices should enhance forest and woodland health and ensure long-term sustainability. These practices may be commercial or non-commercial. (Forestry)

Strategy 3: Suppress all wildfires on the area through direct and/or indirect control. (Forestry)

Strategy 4: Utilize best management practices to maintain soil, water, and visual integrity. Refer to the Missouri Watershed Protection Practices manual while installing best management practices to prevent soil erosion (Missouri Department of Conservation, 2014b). (Forestry)

Strategy 5: Conduct prescribed burns (most often low intensity burns) in woodland habitats to stimulate oak regeneration. (Forestry, Wildlife)

Management Objective 2: Identify and control invasive species.

Strategy 1: Identify invasive species sites through forest or natural community inventories and by casual observations. (Forestry, Wildlife,)

Strategy 2: Use biological, mechanical, and chemical management techniques, as needed, to control invasive species. (Forestry,)

Management Objective 3: Enhance and protect amphibian and reptile habitat.

Strategy 1: Identify and enhance existing ephemeral pools and permanent wildlife watering ponds. (Forestry, Wildlife)

Strategy 2: Place woody debris in existing pools and ponds to provide cover. (Forestry, Wildlife)

Strategy 3: Explore the feasibility of constructing additional wildlife watering ponds on dry ridges greater than a quarter mile from an existing water source; construct two each in Compartments 1, 8 and 9; pending Department approval. (Design and Development, Forestry, Wildlife)

Management Objective 4: Enhance upland wildlife habitat and hunting opportunities.

Strategy 1: Maintain the two ADA-accessible hunting areas (Compartments 1 and 5); and continue to issue special use permits for all-terrain-vehicle use by disabled hunters possessing special hunting exception permits (e.g., stationary vehicle permits). (Forestry, Wildlife)

Strategy 2: Maintain bush-hogged paths in the old field across from the shooting range. (Forestry)

Strategy 3: Maintain snag and den trees, as specified in current state land forest management guidelines (Missouri Department of Conservation, 2014a). (Forestry)

Strategy 4: Maintain approximately 30 acres of old field habitat in warm-season grass mixtures and in desirable cool-season grass mixtures, through prescribed burning, and periodic disking to control woody vegetation (Forestry).

Strategy 5: Establish 30 to 40 acres of small grain food plots annually using conventional farming practices. (Forestry)

Strategy 6: Maintain all service roads by mowing once per year after ground nesting birds have fledged (generally after July 1). (Forestry)

Management Objective 5: Identify, enhance, restore, and protect fens, sinkholes and springs.

Strategy 1: Identify additional fens. Verify individual boundaries and elevations of all known fens on the area and inventory plant and animal species within these sites. (Forestry, Wildlife)

Strategy 2: Favor native vegetation and prevent woody encroachment by using chainsaws or periodic prescribed burning, and/or approved aquatic herbicide within fens. (Forestry, Wildlife)

Strategy 3: Maintain a 150-foot buffer of native vegetation around all sinkholes, springs, fens, and spring branches to protect them from disturbance. (Forestry, Wildlife)

VI. Aquatic Resource Management Considerations

Challenges and Opportunities:

- 1) Manage stable stream banks and gravel bars where disturbance of stream channels commonly occurs on private land.
- 2) Demonstrate the value of proper riparian corridor management by developing a stable stream channel.
- 3) Provide quality fishing opportunities under heavy fishing pressure.

Management Objective 1: Protect and enhance the water quality of Trace Creek, Grassy Creek, area intermittent streams, and surrounding groundwater.

Strategy 1: Identify stream bank erosion sites and restore to stable conditions, where practicable. (Fisheries, Forestry)

Strategy 2: Establish or maintain a 100-foot riparian corridor on Trace Creek and 50 feet on all other tributaries, by planting trees and native shrubs. All

stream corridors will be managed following the recommendations in the *Watershed and Stream Management Guidelines* (Missouri Department of Conservation, 2009) and *Missouri Watershed Protection Practices* manual (Missouri Department of Conservation, 2014b). (Fisheries, Forestry)

Strategy 3: Minimize sedimentation by using best management practices to streams and tributaries from land management practices, multiple-use trails, and roads. (Fisheries, Forestry)

Management Objective 2: Establish and maintain a desirable fish population in Ivey Lake (fishing lake on area map).

Strategy 1: Stock Ivey Lake as necessary with appropriate fish species. (Fisheries)

Strategy 2: Manage aquatic vegetation for optimum fish habitat and angler access. (Fisheries)

Strategy 3: Sample Ivey Lake every three to five years to monitor fish population. (Fisheries)

Strategy 4: Maintain the dam, principle inlet, and emergency spillway. (Fisheries)

Strategy 5: Periodically evaluate fishing regulations to determine if they are providing adequate protection of fish population. (Fisheries)

Strategy 6: Maintain shoreline fishing access trail. (Fisheries)

VII. Public Use Management Considerations

Challenges and Opportunities:

- 1) Heavy hunting pressure during the opening weekend of firearms deer season.
- 2) Provide opportunities for the public to use this area for a variety of compatible recreational activities.

Management Objective 1: Provide opportunities for the public to use and enjoy natural resources.

Strategy 1: Issue trapping permits through the Special Use Permitting process. (Forestry, Wildlife, Protection)

Strategy 2: Maintain approximately 19.5 miles of multiple-use trails. (Forestry, Wildlife, Protection).

Management Objective 2: Develop and maintain facilities for public use.

Strategy 1: Explore the feasibility of developing additional parking opportunities in high-use areas and eliminate underutilized parking areas as approved. (Forestry, Design and Development)

Strategy 2: Maintain privy, as needed, to provide safe access and a clean environment for public use. (Forestry, Design and Development)

VIII. Administrative Considerations

Challenges and Opportunities:

- 1) There are non-contiguous parcels separated by private land.
- 2) Establish accurate and identifiable boundary markers to prevent encroachment.
- 3) Consider acquisition of land, when available.

Management Objective 1: Maintain boundary lines.

Strategy 1: Continue boundary line repainting schedule. A database has been created to document and monitor all known inline and corner markers.

Boundary lines are repainted, on a rotational basis of five years, approximately 20 miles per year. (Forestry)

Strategy 2: Submit boundary survey requests, as needed. (Forestry)

Lands Proposed for Acquisition:

When available, adjacent land may be considered for acquisition from willing sellers. Tracts that improve area access, provide public use opportunities, contain unique natural communities and/or species of conservation concern, or meet other Department priorities, as identified in the annual Department land acquisition priorities, may be considered.

MANAGEMENT TIMETABLE

Strategies are considered ongoing.

APPENDICES

Area Background:

A large portion of the area was acquired by the Missouri Department of Conservation (the Department) in 1978. The land was first purchased by The Nature Conservancy in 1977 from the Koppers Company who had title to the land from the early 1940s. In the 1960s, the Nature Conservancy held the land in trust until it could be purchased by the Department.

The Koppers Company was primarily a railroad tie manufacturer and the forest was a source of raw materials. They conducted periodic harvests, but did not make extensive cuts. The forest was classified as Forest Cropland in 1948 and declassified in 1973.

The purpose of the acquisition by the Department was to establish a State Forest and provide multiple-use opportunities to the public.

It is nearly all forest and is home to Blue Pond Natural Area. Blue Pond is the deepest natural pond in Missouri. Facilities/features include primitive camping, multiuse hike/bike/horse trail, numerous intermittent streams and one permanent stream.

There are several small springs scattered in Castor River CA. All are considered having low flow rates, except for possibly Blue Pond. There are at least two springs within the banks of Pond Creek. Several other small springs have been observed while conducting annual forest inventories.

Current Land and Water Types:

Land Type	Acres	Miles	% of Area
Forest and Woodland	9,246		96
Old Field	260		3
Crop Land	64		<1
Lakes/Ponds	8		<1
Total	9,578		100
Stream Frontage		30	

References:

Missouri Department of Conservation. (1981). *Castor River State Forest management plan*.

Missouri Department of Conservation. (1998). *Castor River Conservation Area management plan*.

Missouri Department of Conservation. (2009). *Watershed and stream management guidelines for lands and waters managed by Missouri Department of Conservation*. Jefferson City, MO: Missouri Department of Conservation.

Missouri Department of Conservation. (2014a). *Missouri forest management guidelines: Voluntary recommendations for well-managed forests*. Jefferson City, MO: Missouri Department of Conservation.

Missouri Department of Conservation. (2014b). *Missouri watershed protection practices recommended practices for Missouri forests: 2014 management guidelines for maintaining forested watersheds to protect streams*. Jefferson City, MO: Conservation Commission of the State of Missouri.

Maps:

Figure 1: Area Map

Figure 2: Trail Map of Castor River

Figure 3: Easement Map

Figure 4: Aerial Photo with Compartment Numbers

Figure 5: Land Cover Map

Figure 6: Compartment & Inventory Map

Figure 1: Area Map

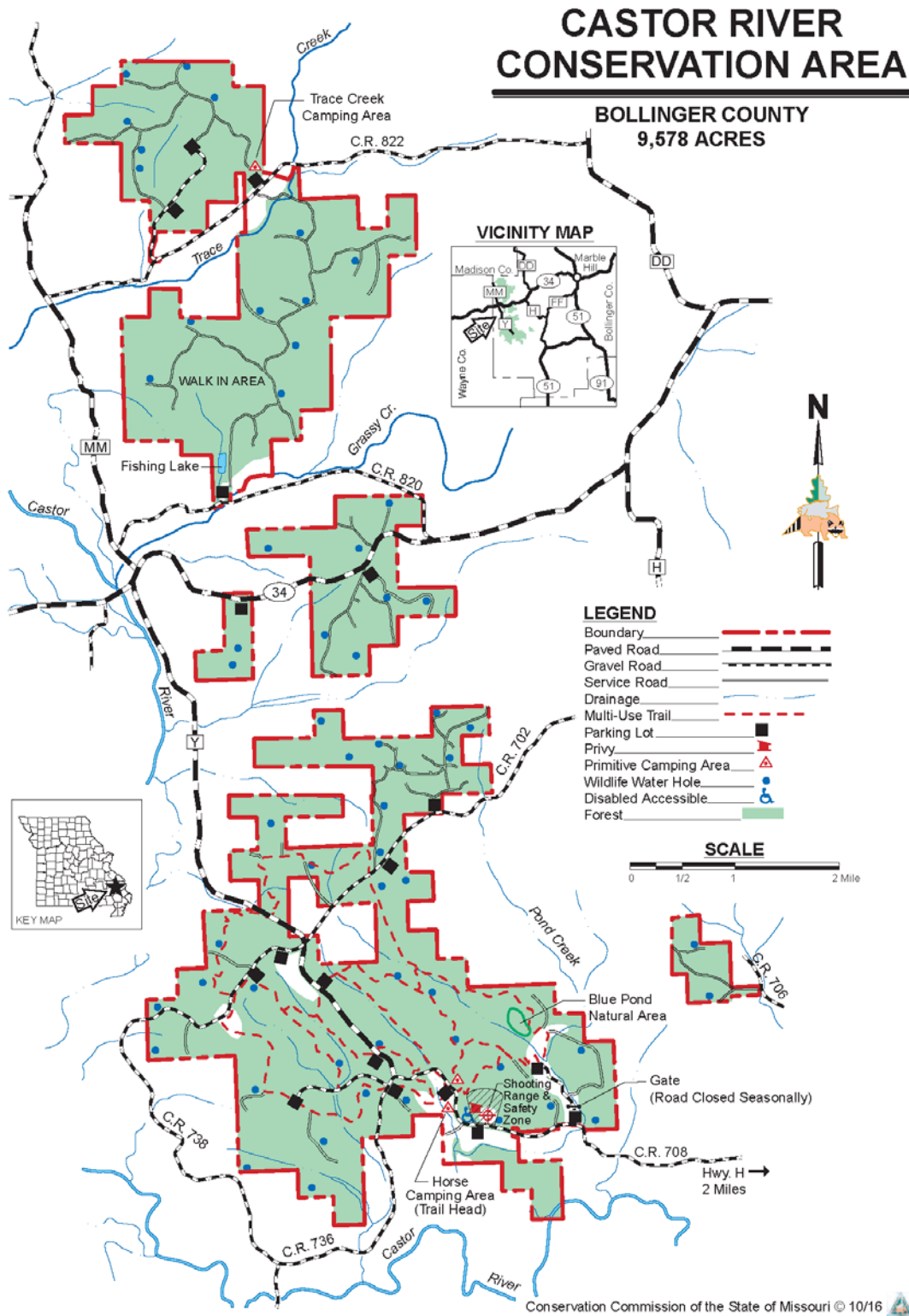


Figure 2: Trail Map of Castor River CA

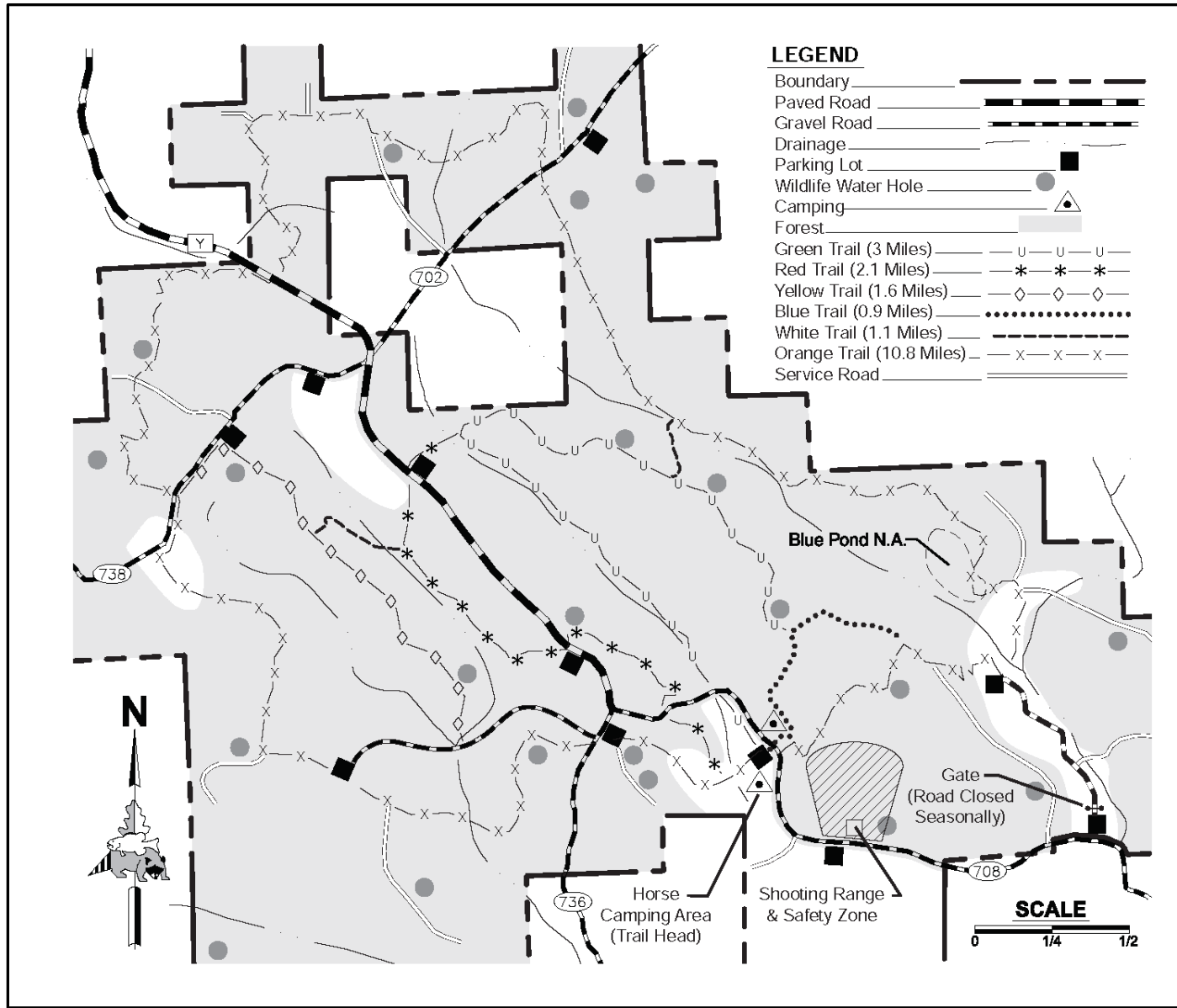


Figure 3: Easements Map

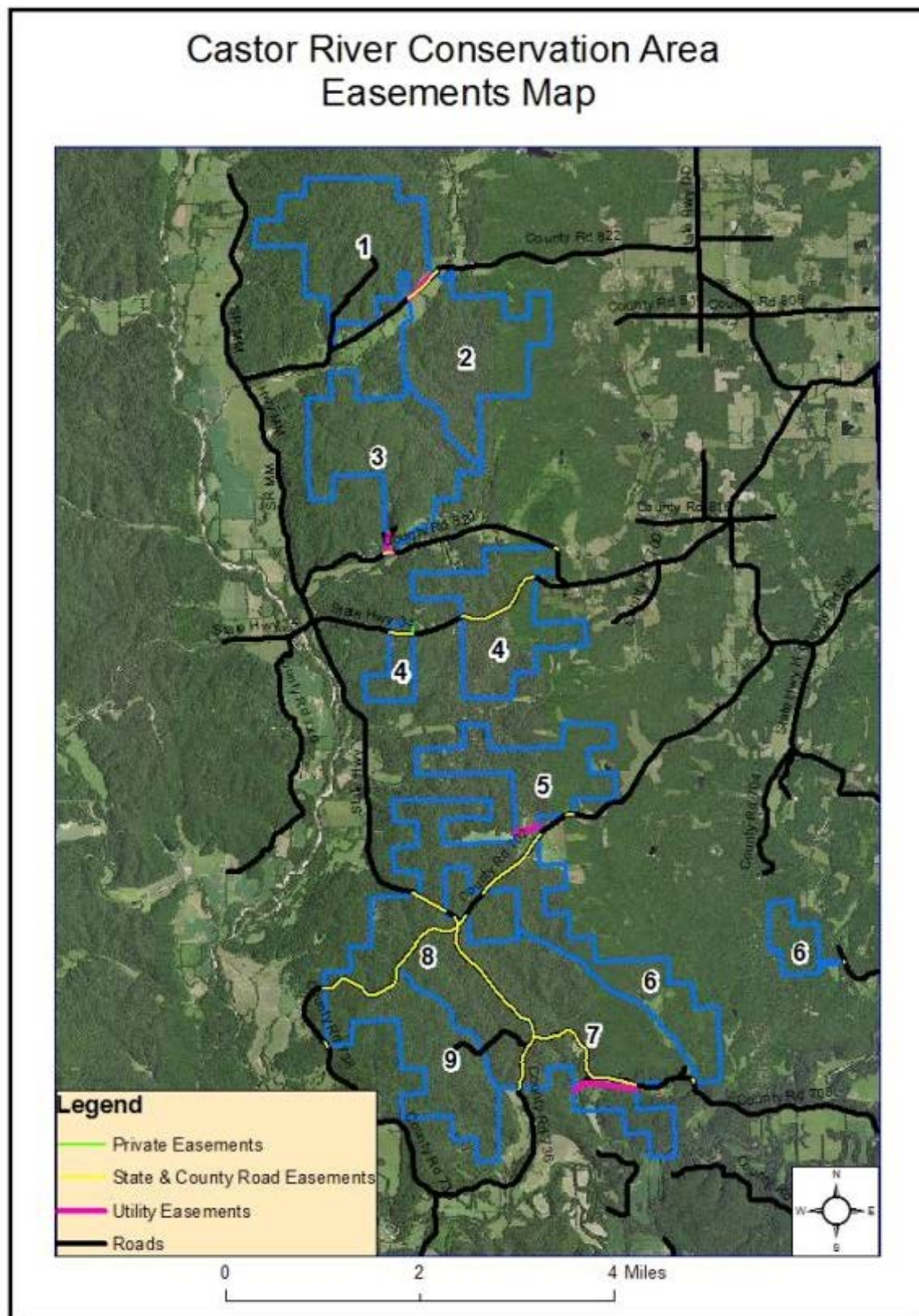


Figure 4: Aerial Photo with Compartment Numbers

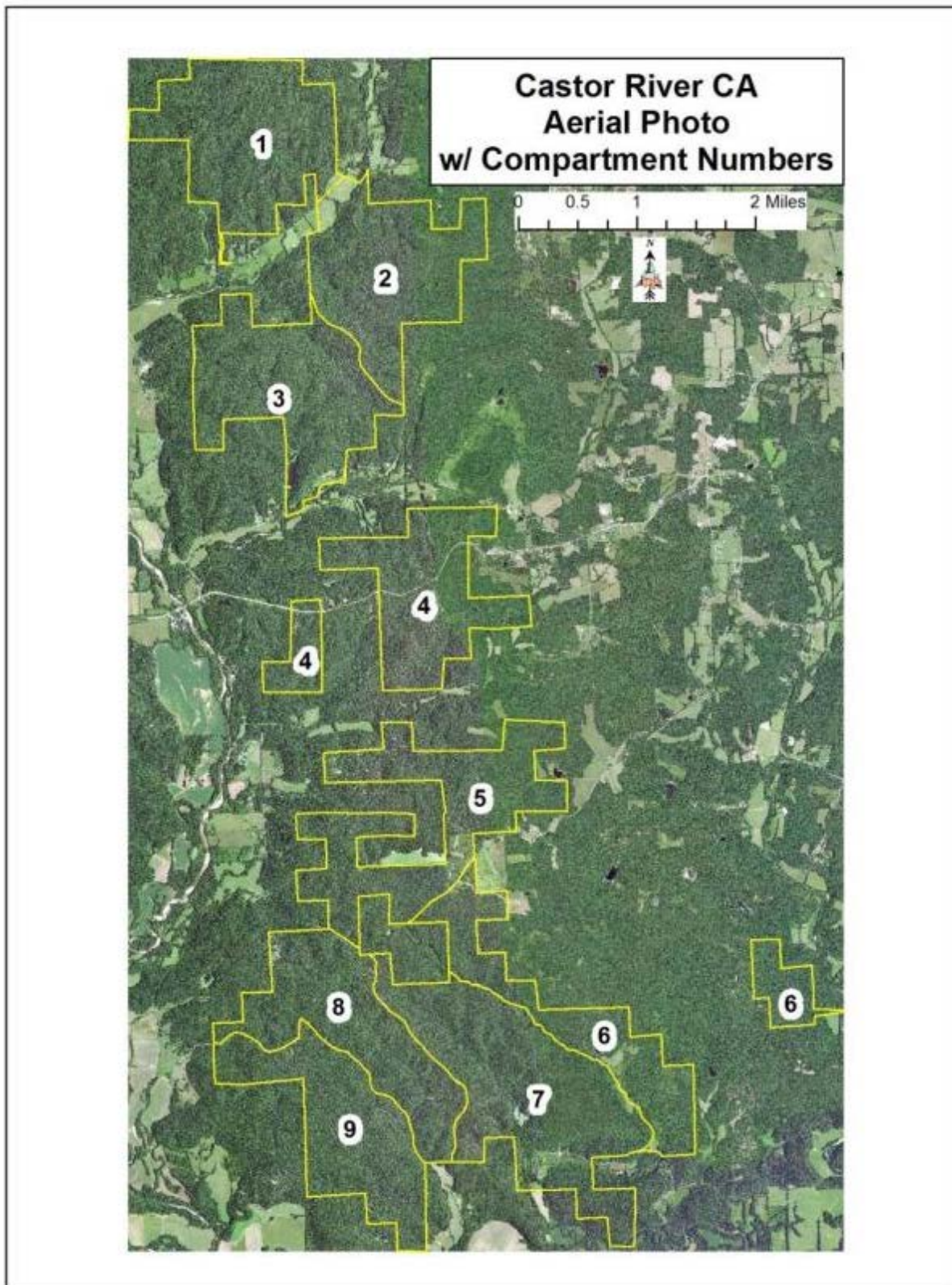


Figure 5: Land Cover Map

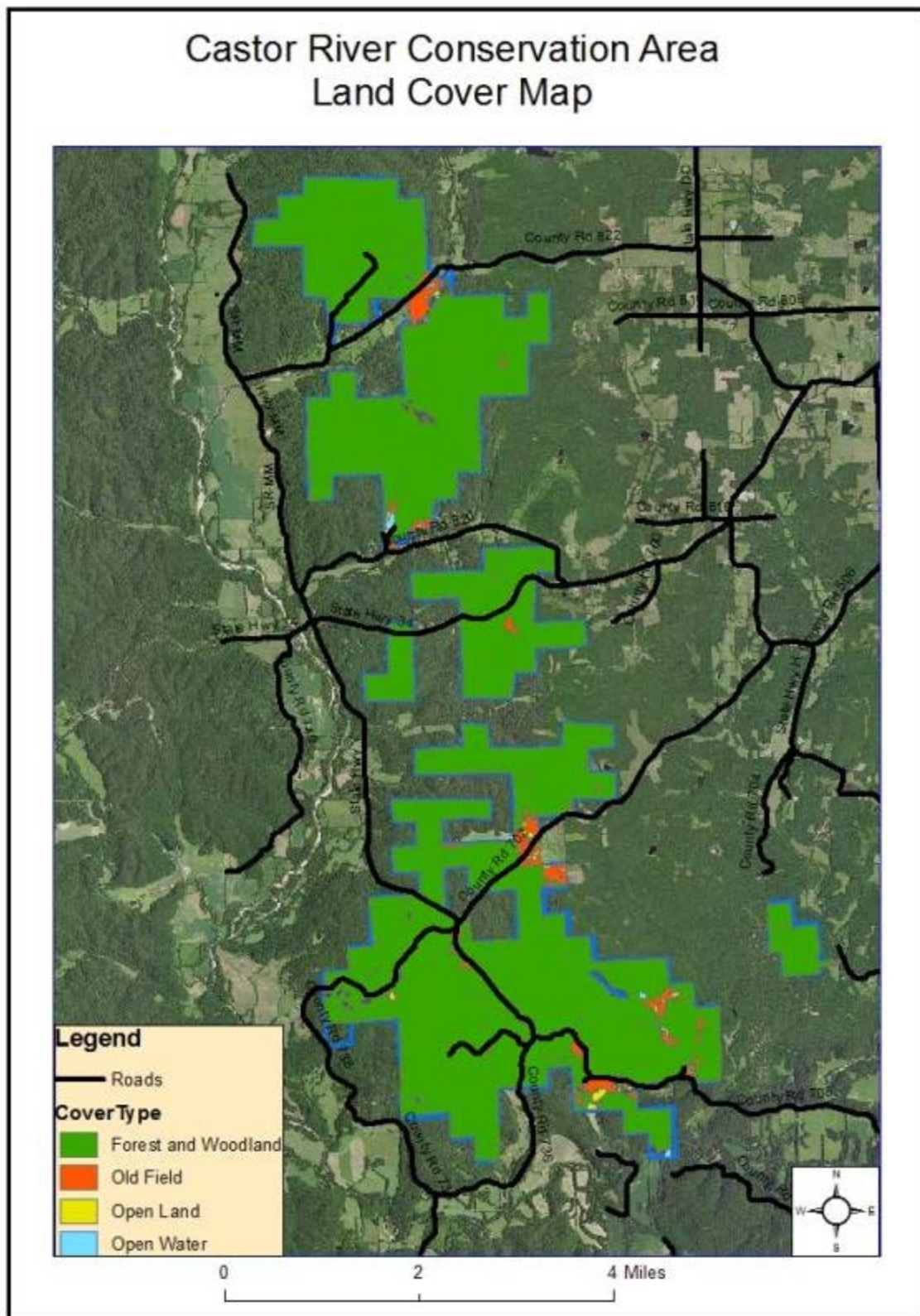
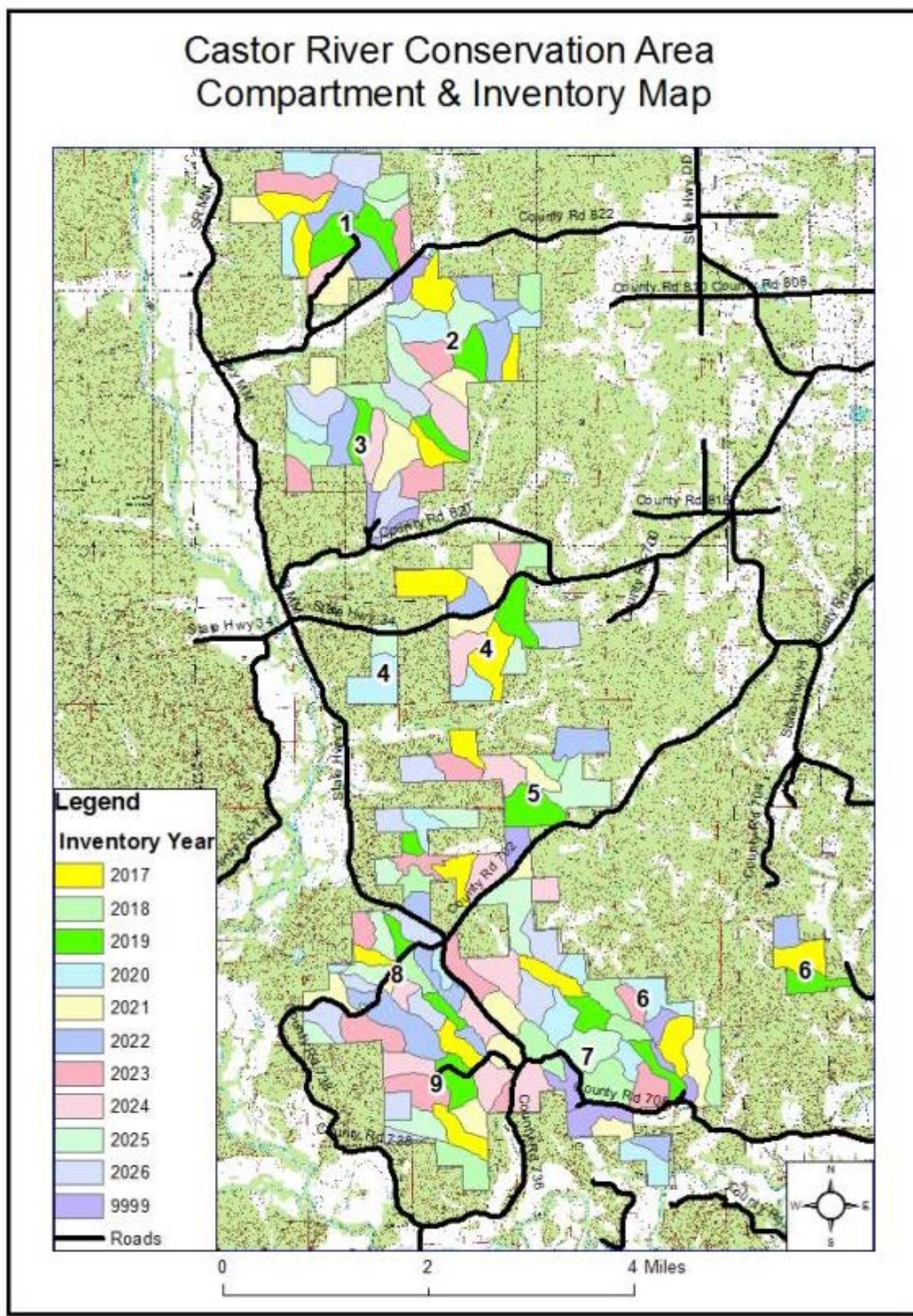


Figure 6: Compartment and Inventory Map



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